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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,430	07/02/2003	Emmanuel Lardais	28944/40072	5051

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EXAMINER


D ADAMO, STEPHEN D

ART UNIT PAPER NUMBER

3636

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/612,430	Applicant(s) LARDAIS ET AL. 	
	Examiner Stephen D'Adamo	Art Unit 3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/29/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Throughout the claims, several phrases are used, such as "a certain amount of play"

(claim 1, line 43), which renders the claim indefinite because the limitations are unclear.

Claim 1 recites three locking members having a second set of teeth cooperating with the first set of teeth on the cheek plate. Claim 8 is dependent on claim 1 and recites a slug carrier 55 and a slug 56 cooperating with the first set of teeth. It is confusing and unclear how the locking plates *and* slugs cooperate with the first set of teeth on the cheek plate.

Clarification is needed. As understood, the slug replaces the locking member.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganot et al. (6,095,608) in view of Pipon et al. (4,770,464).

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Ganot discloses a “vehicle seta fitted with a hinge mechanism” comprising a seat back 4 and a seat proper 2 mounted in a pivotal relationship. Each side of the vehicle seat includes first and second hinges 5 and 6 “which are respectively controlled by handles 7 and 8 and which are connected to each other by a link 9 extending horizontally and transversely relative to the seat” (col.6, lines 53-56). Each hinge comprises a first cheek plate 10, 11 secured to the seat proper and a second cheek plate 12, 13 secured to the seat back. The second cheek plate 12, 13 provides a first set of teeth 30, 31 centered on the pivot axis. Further, a plurality (3) of locking members 26, 27 on each hinge are provided with a second set of teeth 28, 29 having an angular pitch identical to that of the cheek plate. The locking members are mounted to move in a substantially radial direction between an active position where the two sets of teeth are in engagement with one another and a retracted position where the two sets of teeth do not cooperate with one another. However, Ganot fails to teach of circumferential movement of the locking members in one of the hinges. Yet, Pipon discloses “articulation members for back portions of vehicle seats.” The articulation members comprise of a tooth ring 1 and three bearing plates 3, 4, 5 with toothed surfaces having the same pitch as the toothed ring. Further, Pipon discloses a certain amount of play in the bearing plates or locking members in a circumferential direction. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify one of the hinge mechanisms of Ganot with Pipon’s articulation member, for providing “a compensation in play” of the reclining mechanism.

Regarding claim 2, Pipon discloses the minimum angle between the two positions of the back portion is equal to the angular pitch of one tooth. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the compensation in play of the articulation member twice that of one tooth, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

In regards to claims 3-5 Ganot and Pipon disclose guides for guiding the bearing plates or locking members into and out of engagement with the first set of teeth on the cheek plate. Therefore, when the locking members are in the retracted position, they are all in an identical position, relative to the first cheek plate. Moreover, the hinge of Pipon includes the sectors or guides 16, 17, 18 in which the locking members or bearing plates can bear against in the active position. Furthermore, with regards to claim 6, Pipon discloses intermediary parts 22, 23, 24. The intermediary parts ensure a wedging position for the bearing plates 13, 14, 15. Note, Figure 6 of Pipon discloses bearing edges 14b and 15a of the bearing plates or locking members for respective wedges with the set of teeth on each bearing plate.

Regarding claim 8, Pipon discloses slug carriers 22, 23, 24 mounted to slide radially between two guides 16, 17, 18. The slug carriers cooperate to with the control device and connect to a slug or bearing members 13, 14, 15, which engages with the first set of teeth on the cheek plate.

Regarding claim 10, Ganot teaches of a rotary cam, which is urged towards a rest position in which the cam places the locking members in the active/engaging position.

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Further, the control plate 43 is secured to the cam and includes cutouts 45 adapted to cooperate with pegs provided on each locking member.

In regards to claim 13, Ganot teaches of a lost-motion mechanical coupling which interconnects the control devices of the first and second hinges.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganot et al. (6,095,608) in view of Pipon et al. (4,770,464) and in further view of Cilliere et al. (6,561,585).

Ganot discloses a “vehicle seta fitted with a hinge mechanism” comprising a seat back 4 and a seat proper 2 mounted in a pivotal relationship. Each side of the vehicle seat includes first and second hinges 5 and 6 “which are respectively controlled by handles 7 and 8 and which are connected to each other by a link 9 extending horizontally and transversely relative to the seat” (col.6, lines 53-56). Each hinge comprises a first cheek plate 10, 11 secured to the seat proper and a second cheek plate 12, 13 secured to the seat back. The second cheek plate 12, 13 provides a first set of teeth 30, 31 centered on the pivot axis. Further, a plurality (3) of locking members 26, 27 on each hinge are provided with a second set of teeth 28, 29 having an angular pitch identical to that of the cheek plate. The locking members are mounted to move in a substantially radial direction between an active position where the two sets of teeth are in engagement with one another and a retracted position where the two sets of teeth do not cooperate with one another. However, Ganot fails to teach of circumferential movement of the locking members in one of the hinges. Yet, Pipon discloses “articulation members for back portions of vehicle seats.” The articulation members comprise of a tooth ring 1 and three

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bearing plates 3, 4, 5 with toothed surfaces having the same pitch as the toothed ring. Further, Pipon discloses a certain amount of play in the bearing plates or locking members in a circumferential direction. Pipon fails to further teach of springs and a control plate on the articulation members. Yet, Cilliciere teaches the conventionality of utilizing both springs and a control plate as claimed. Cilliciere teaches of similar articulation members as taught by Pipon and also including springs 27, which urge the locking members to an active position. Moreover, Cilliciere discloses a control plate 118 having cutouts 119 adapted to cooperate with projecting pegs provided in the locking members. The cutout has a ramp-shaped cam edge, as seen in Figure 13, which is adapted to hold the corresponding locking member in the active position when the control plate is in the rest position. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Ganot and Pipon with springs and an additional control plate, as taught by Cilliciere, for providing a stronger engagement between the two sets of teeth.

Allowable Subject Matter

3. Claim 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rohee et al. (6,328,383) and Pipon et al. (JP 1,104,201) both show various features of the claimed invention.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen D'Adamo whose telephone number is 703-305-8173. The examiner can normally be reached on Monday-Thursday 6:00-3:30, 2nd Friday 6:00-2:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pete Cuomo can be reached on 703-308-0827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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September 22, 2004


Peter M. Cuomo
Supervisory Patent Examiner
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